

DOUBLE SECURITY
KEMEL COMPACT SEAL
(STERNTUBE SEALING)

S. NO. : S1183/4/5/6/7/8/9/90/1/2

TYPE : DX-480

SERIAL NO. : X-39952/53/54/55/56
X-39957/58/59/60/61

CLASS. : LR

SHIPBUILDER : SHANGHAI SHIPYARD CO., LTD.

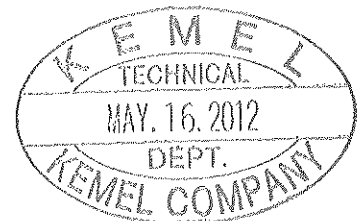
CAREER: 1) PREPARED FOR PLANNING

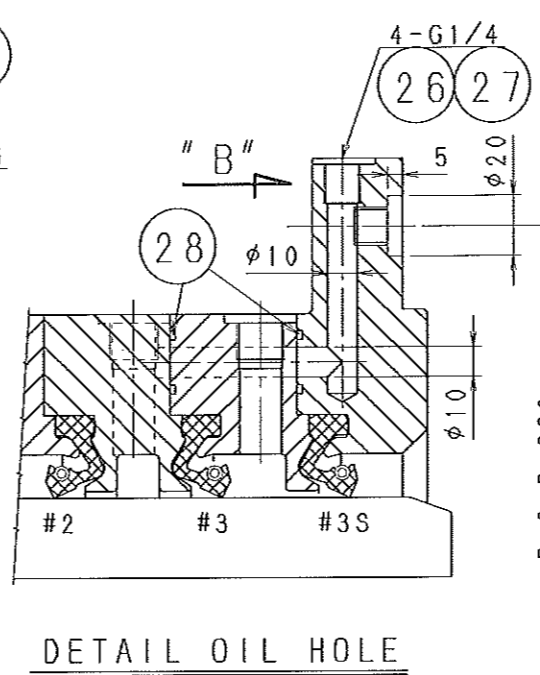
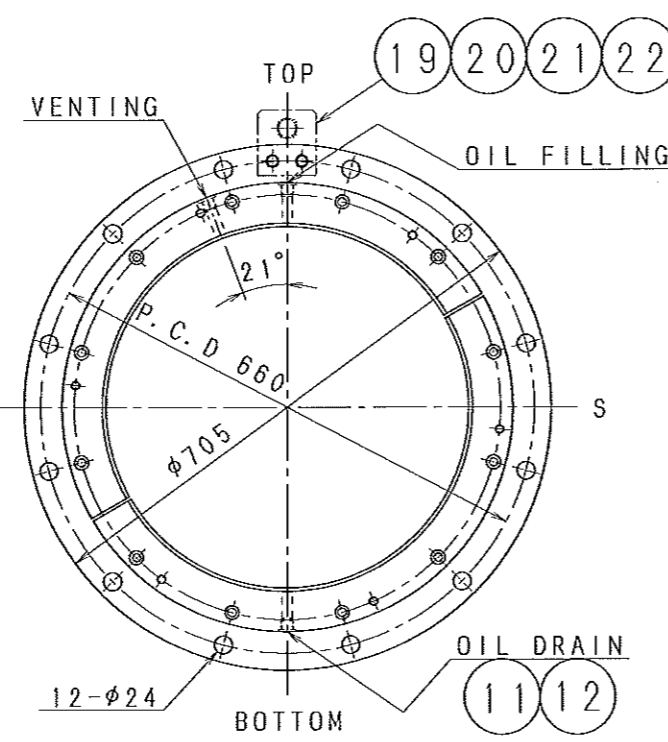
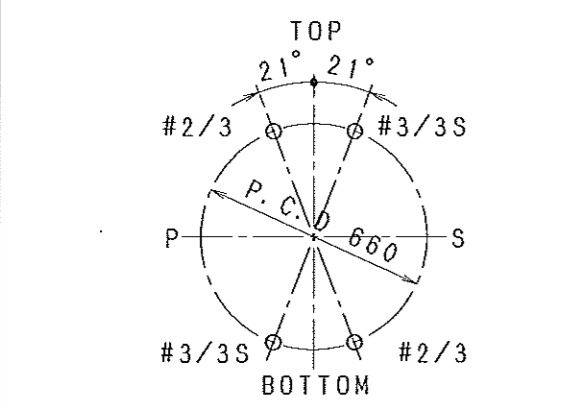
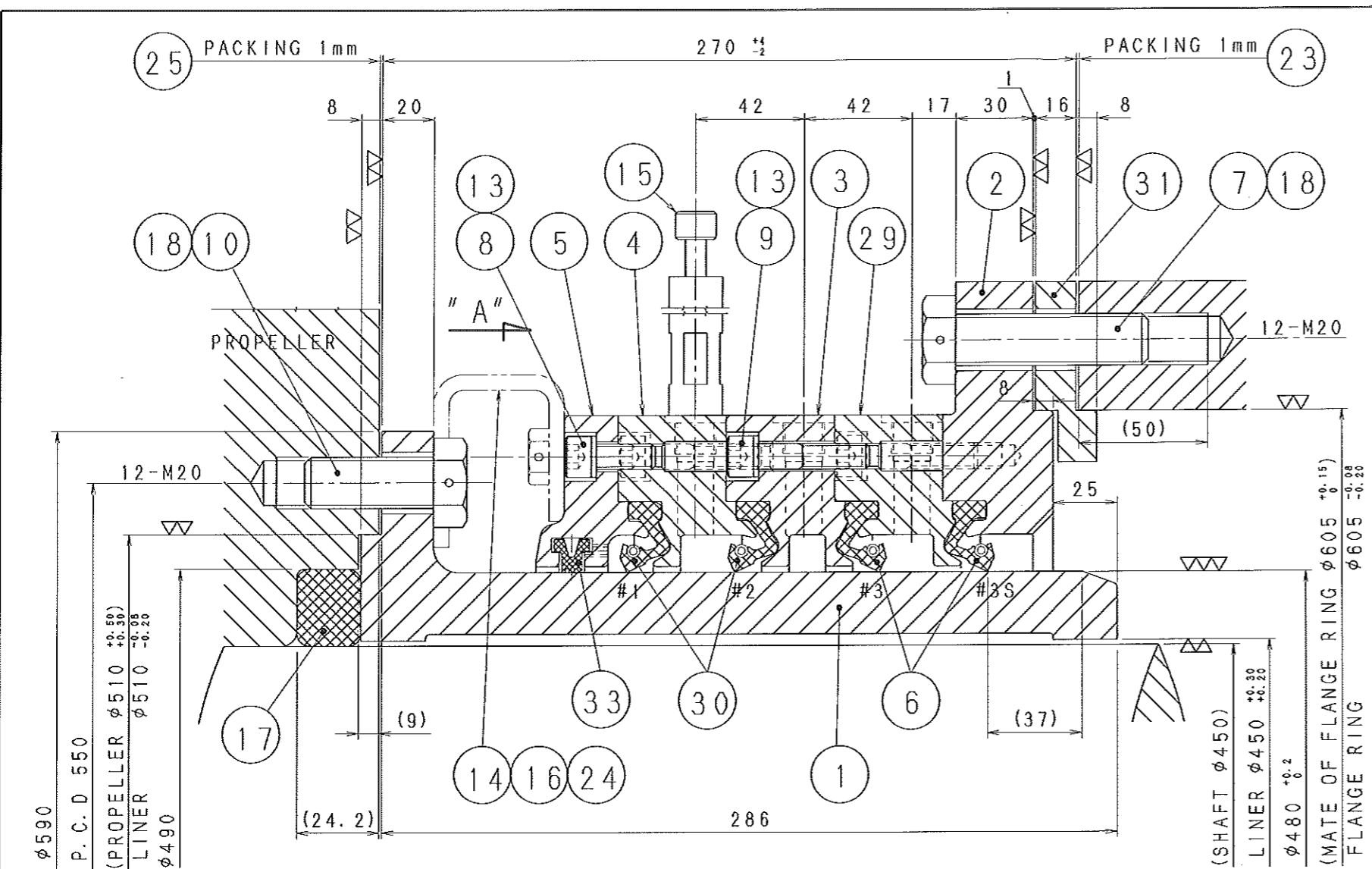
(30. NOV, 2009)

FINISHED PLAN

KEMEL
KEMEL

KEMEL COMPANY
a division of EAGLE INDUSTRY CO., LTD.





NOTE

- 1) THE CENTER OF SPIGOT OF FLANGE RING IS CONCENTRIC } TO THE CENTER OF ECCENTRIC SEALING RINGS.
- 2) THE ECCENTRICITY OF AFT LINER IS ADJUSTED WITHIN 0.2mm/Dia IN THE INSTALLATION (AFTライナーの取付偏心量は、0.2mm/Dia以内に調整下さい。)

33	ネット ストッパー (2分割) NET STOPPER, TWO PART	SYNTHETIC RUBBER	1SET	-	TYPE S
31	ディスタンスリング (2分割) DISTANCE RING (TWO PARTS)	SS400	1SET	17	
30	シーリング リング SEALING RING	VITON	2	0.78	WITH SPRING (RUBBER COAT)
29	No3 中間リング No3 INTERMEDIATE RING	CAC301	1	28	
28	O リング RUBBER RING	NBR	6	-	IAP-15
27	プラグ PLUG	C6782	4	0.02	G 1/4
26	パッキン PACKING	C1100P	4	-	φ14Xφ19X1.5
25	パッキン PACKING	ASNON	1	-	φ512Xφ590X1.0
24	歯付座金 TOOTHED LOCK WASHER	SUS304	12	0.01	M12
23	パッキン PACKING	ASNON	2	-	φ607Xφ705X1.0
22	六角頭付ボルト HEXAGON HEAD SCREW	SUS304	2	0.08	M16X23
21	六角頭付ボルト HEXAGON HEAD SCREW	SS400	2	0.1	M16X40X38S
20	吊り金具 TRANSPORT TOOL	SS400	1	0.79	
19	パッキン PACKING	C1100P	2	-	M16
18	針金 WIRE	SUS304-WR	1	0.18	φ1.6X8000
17	O リング RUBBER RING	SYNTHETIC RUBBER	1	-	INNER DIA φ437 RING DIA φ19.5
16	止メ金具 MOUNTING STRAP	SS400	6	0.2	
15	計測器 WEAR DOWN GAUGE	STAINLESS STEEL	1	0.7	G 3/8
14	六角頭付ボルト HEXAGON HEAD SCREW	SUS304	12	0.04	M12X18X18S
13	歯付座金 TOOTHED LOCK WASHER	SUS304	48	0.01	M10
12	プラグ PLUG	C6782	11	0.05	G 3/8
11	パッキン PACKING	C1100P	11	-	φ17Xφ22X1.5
10	六角頭付ボルト HEXAGON HEAD SCREW	SUS316	12	0.23	M20X50 P=2.5
9	六角穴付ボルト CYLINDER HEAD SCREW	SUS304	36	0.04	M10X45X32S
8	六角穴付ボルト CYLINDER HEAD SCREW	SUS304	12	0.03	M10X25X25S
7	六角頭付ボルト HEXAGON HEAD SCREW	SUS316	12	0.23	M20X75 P=2.5
6	シーリング リング SEALING RING	VITON	2	0.78	WITH SPRING (SUS316)
5	カバー リング (2分割) COVER RING, TWO PARTS	CAC301	1SET	19	
4	No1 中間リング No1 INTERMEDIATE RING	CAC301	1	28	
3	No2 中間リング No2 INTERMEDIATE RING	CAC301	1	28	
2	フランジ リング FLANGE RING	CAC301	1	53	
1	ライナー LINER	CHROME STEEL	1	100	

符号	部品名	材料	個数	予備	単重量	備 考
ITEM	NAME OF PART	MATERIAL	NO REQ'D	SPARE	WEIGHT Kg	REMARKS

来歴 CAREER

注文主 MESSRS SHANGHAI SHIPYARD CO., LTD.

名称 NAME DOUBLE SECURITY TYPE
KEMEL - COMPACT Seal
AFT TYPE DX-480

DATE DR. DATE	SCALE	WEIGHT	APPROVED	CHECKED	DRAWN
2012. 04. 02	-	288 kg	K. USUI	S. MORIYOSHI	M. OKAMOTO

KEMEL KEMEL COMPANY

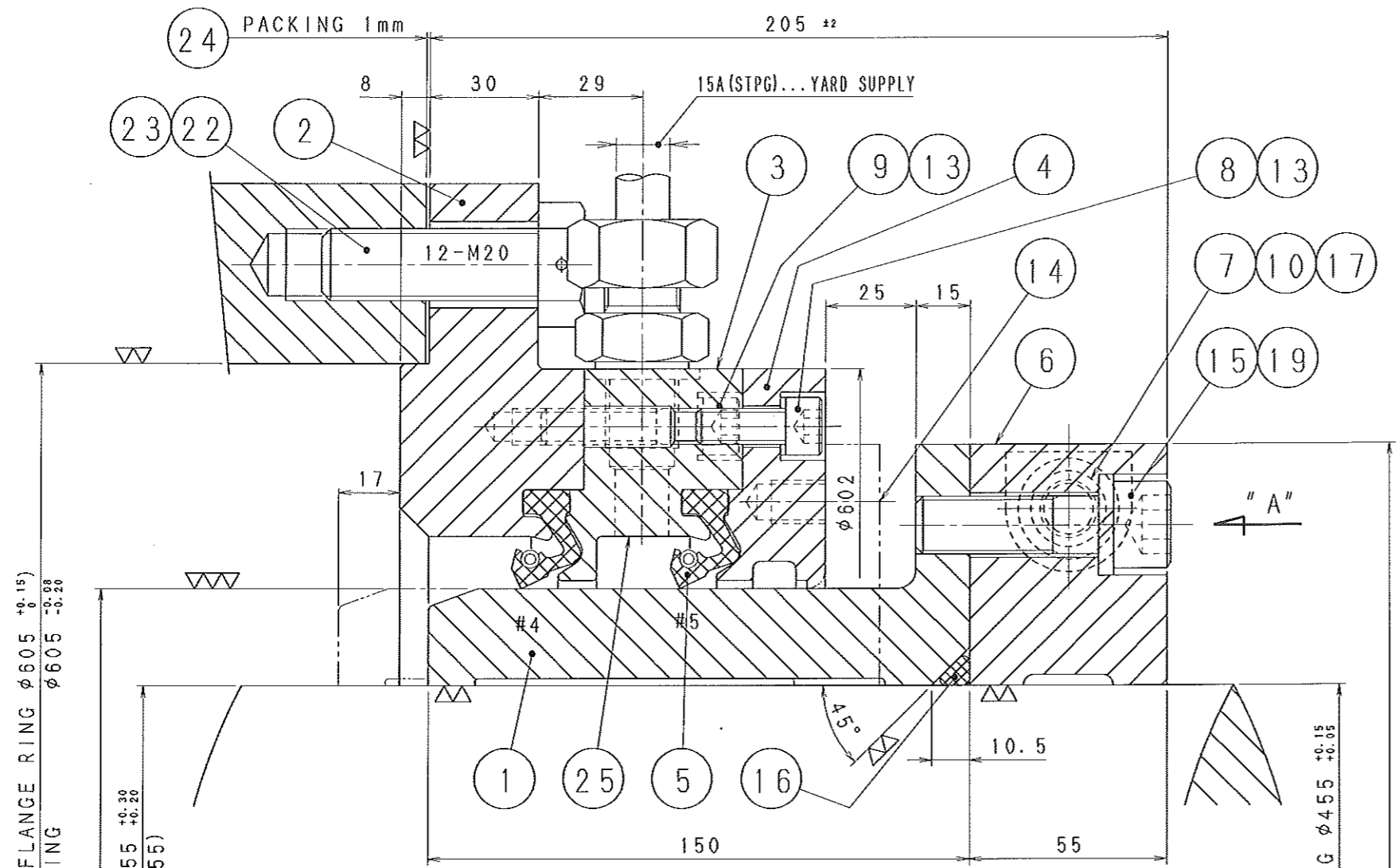
a division of EAGLE INDUSTRY CO., LTD.

Serial No. X-39952/53/54/55/56
X-39957/58/59/60/61

S. No. S1183/4/5/6/7/8
S1189/90/1/2

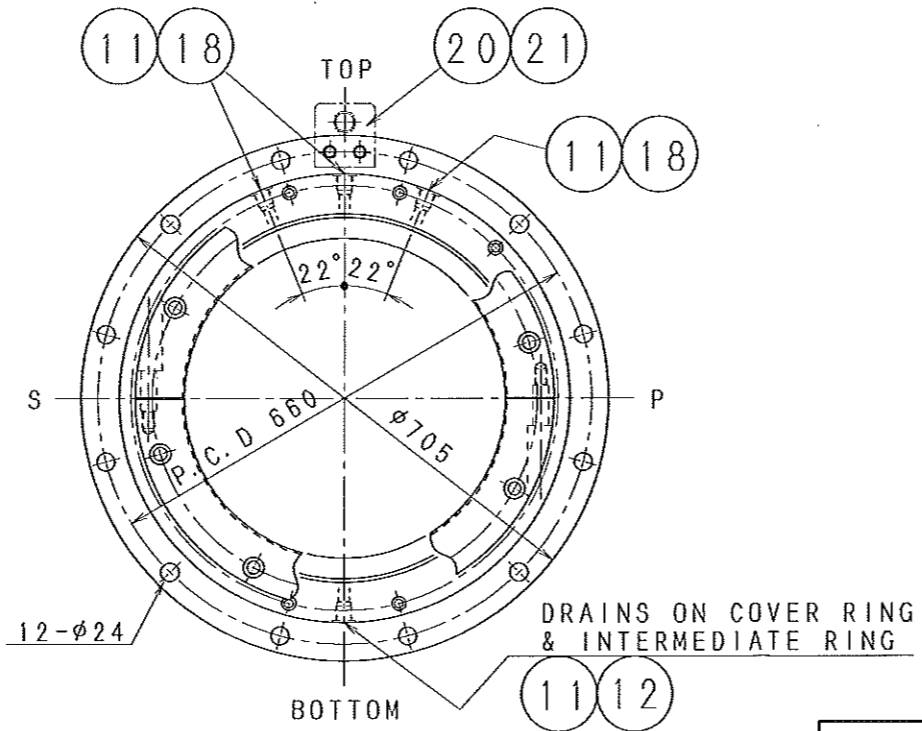
DX-480001-0

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(MATE OF FLANGE RING $\phi 605 \pm 0.15$)
 FLANGE RING $\phi 605 \pm 0.20$
 $\phi 480 \pm 0.2$
 LINER $\phi 455 \pm 0.20$
 (SHAFT $\phi 455$)

CLAMP RING $\phi 455 \pm 0.15$
 $\phi 560$



VIEW IN DIRECTION "A"

NOTE
 1) THE CENTER OF SPIGOT OF FLANGE RING IS CONCENTRIC TO THE CENTER OF SEALING RINGS.
 2) THE ECCENTRICITY OF FWD LINER IS ADJUSTED WITHIN 0.2mm/Dia IN THE INSTALLATION
 (FWDライナーの取付偏芯量は、0.2mm/Dia以内に調整下さい。)

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ITEM	NAME OF PART	MATERIAL	NO REQ'D	SPARE	WEIGHT Kg	REMARKS
25	オイルサーキュレーター OIL CIRCULATOR RUBBER	VITON	1	-		TANK CAP. 10L
24	パッキン PACKING	ASNON	1	-		$\phi 607 \times \phi 705 \times 1.0$
23	針金 WIRE	SUS304-WR	1	0.12		$\phi 1.6 \times 4000$
22	六角頭付ボルト HEXAGON HEAD SCREW	SUS316	12	0.23		M20X60 P=2.5
21	六角頭付ボルト HEXAGON HEAD SCREW	SS400	2	0.1		M16X40X38S
20	吊り金具 TRANSPORT TOOL	SS400	1	0.79		
19	ハネ金具 SPRING WASHER	SWRH72B	8	0.01		M16
18	食込式継手 BITE TYPE CONNECTION	S15C	3	0.3		G 1/2
17	六角穴付ボルト CYLINDER HEAD SCREW	SCM435	2	0.16		M16X75X38S
16	Oリング RUBBER RING	SYNTHETIC RUBBER	1	-		INNER DIA $\phi 441$ RING DIA $\phi 7.7$
15	六角穴付ボルト CYLINDER HEAD SCREW	SCM435	8	0.12		M16X55X50S
14	六角頭付ボルト HEXAGON HEAD SCREW	SS400	4	0.04		M12X30X30S
13	歯付金具 TOOTHED LOCK WASHER	SUS304	24	0.01		M10
12	プラグ PLUG	C6782	1	0.05		G 1/2
11	パッキン PACKING	C1100P	4	-		$\phi 21 \times \phi 29 \times 1.5$
10	ハネ金具 SPRING WASHER	SWRH72B	2	0.01		M16
9	六角穴付ボルト CYLINDER HEAD SCREW	SCM435	12	0.04		M10X45X32S
8	六角穴付ボルト CYLINDER HEAD SCREW	SCM435	12	0.03		M10X25X25S
7	クランプスリーブ CLAMP SLEEVE	SUP3	2	0.1		$\phi 21 \times 45$
6	クランプリンク CLAMP RING, TWO PARTS	FC250	1	41		
5	シーリングリング SEALING RING	VITON	2	0.78		WITH SPRING (SUS316)
4	カバーリング COVER RING	FC250	1	16		
3	中間リング INTERMEDIATE RING	FC250	1	24		
2	フランジリング FLANGE RING	FC250	1	51		
1	ライナー LINER	CHROME STEEL	1	51		

来歴 CAREER

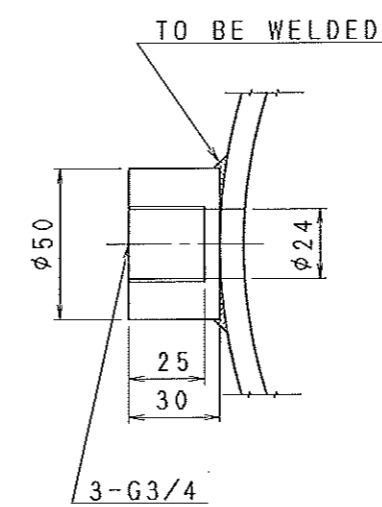
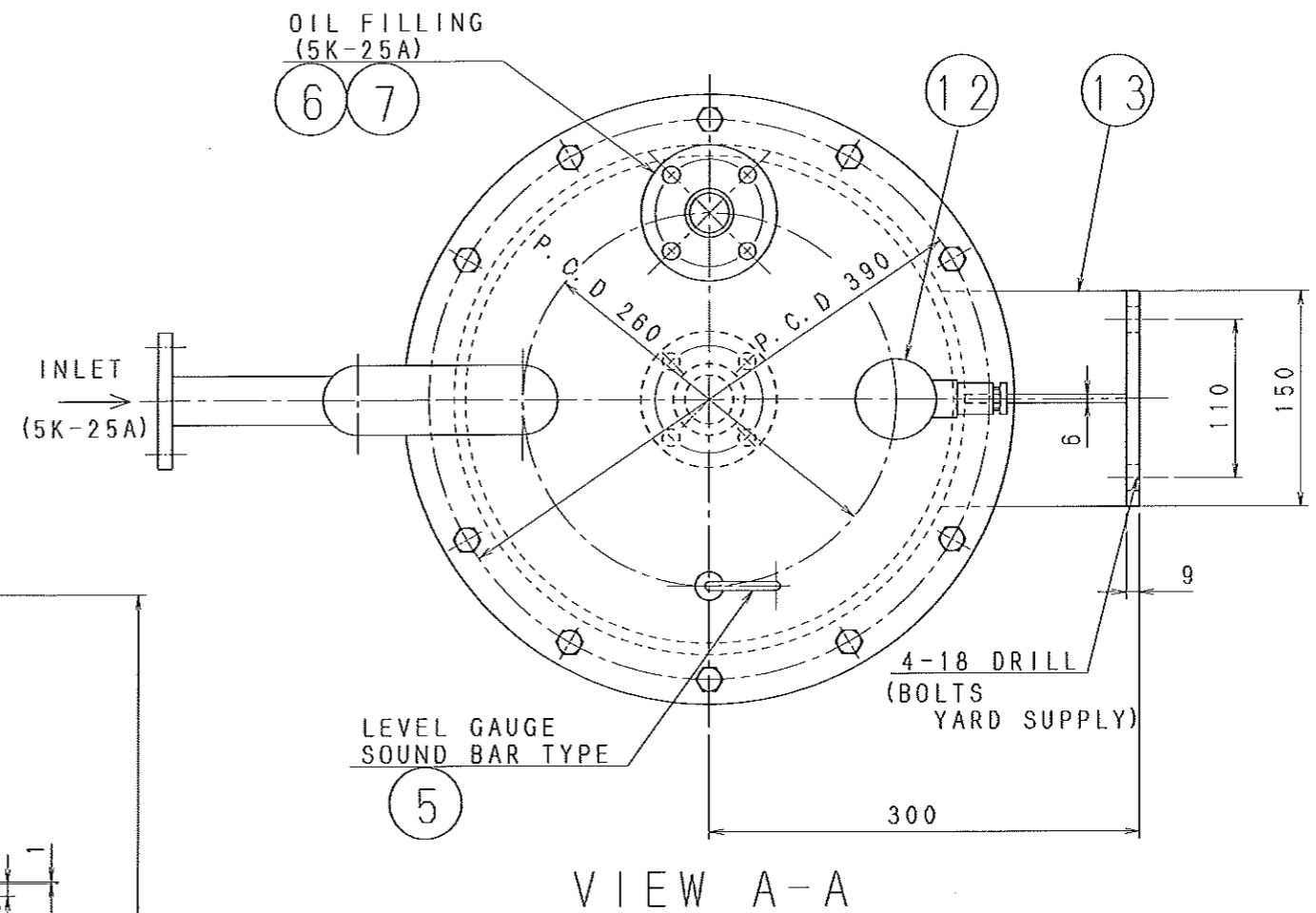
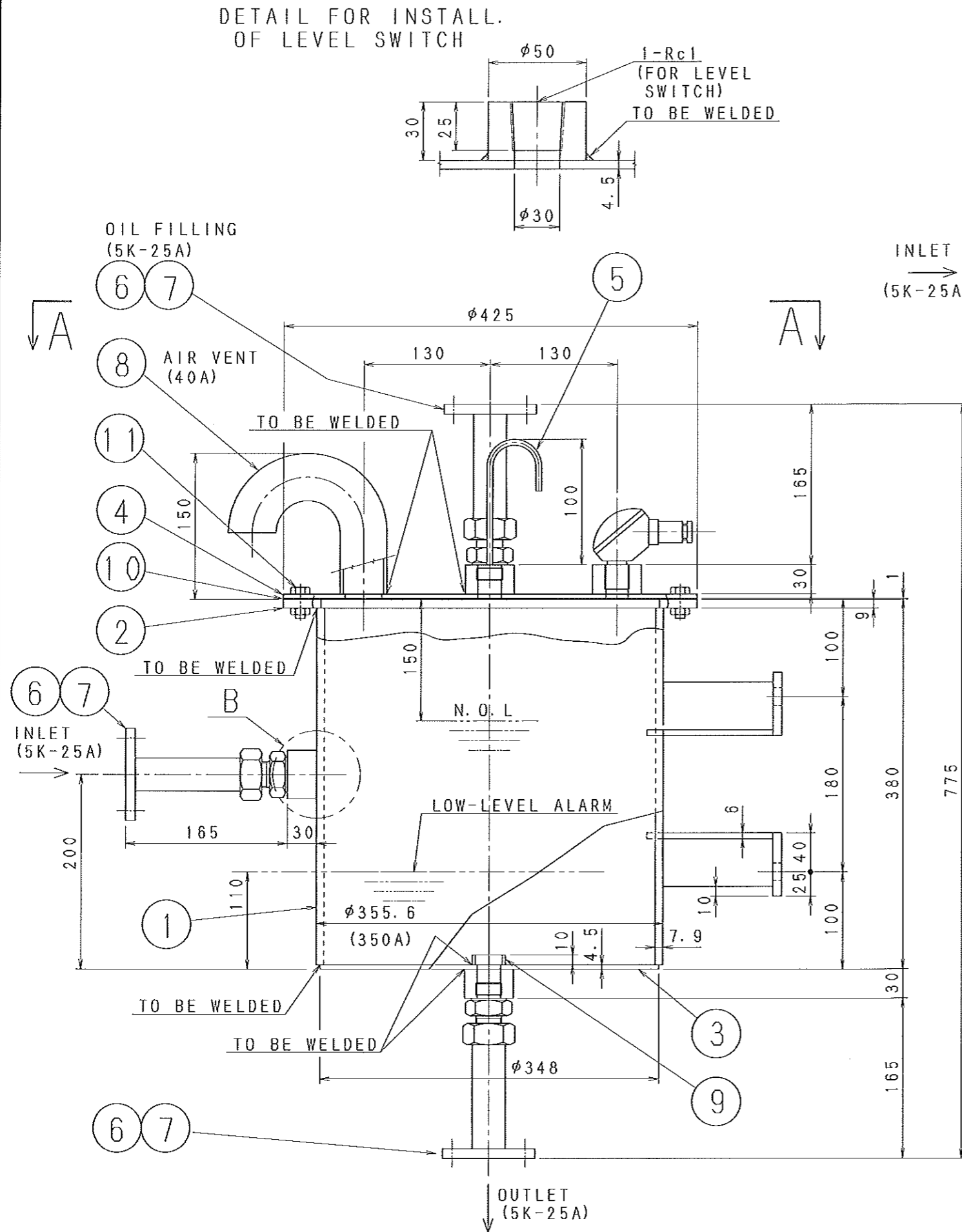
注文主 MESSRS SHANGHAI SHIPYARD CO., LTD.
 名称 NAME KEMEL - COMPACT Seal FWD TYPE CX-480

DATE DR. DATE 2012. 04. 02 | SCALE - | GROSS WEIGHT 192 kg | APPROVED K. USUI | CHECKED S. MORIYOSHI | DRAWN M. OKAMOTO

NAME SERIAL NO. X-39952/53/54/55/56 X-39957/58/59/60/61
 S. NO. S1183/4/5/6/7/8 S1189/90/1/2
 (ISSUE) DVC. NO. CX-480004-0

KEMEL KEMEL COMPANY a division of EAGLE INDUSTRY CO., LTD.

DETAIL FOR INSTALL.
OF LEVEL SWITCH



DETAIL "B"

ITEM	NAME OF PART	MATERIAL	NO. SPARE	WEIGHT	REMARKS
13	SUPPORT	SS400	2 ^S	1.6	t=6/9
12	LEVEL SWITCH (LOW-LEVEL ALARM)	購入品	1	0.8	FLOAT TYPE
11	HEX. BOLT & NUT (WITH SPRING WASHER)	SS400 SWRN72B	12 ^S	0.01	M10X30L
10	PACKING	ASNON	1	-	$\phi 425 \times \phi 357 \times 1$
9	PIPE	SGP	1	0.02	25A
8	AIR VENT	SGP	1	0.8	40A
7	PACKING	C1100P	3	-	
6	FLANGE CONNECTION	STPG. SS400	3	0.6	FL'G: 5K-25A (JIS)
5	OIL LEVEL GAUGE	SS400	1	0.5	SOUND BAR TYPE
4	COVER (2)	SS400	1	5	t=4.5
3	COVER (1)	SS400	1	4	t=4.5
2	FLANGE	SS400	1	3	t=9
1	BODY	SGP	1	26	350A
OIL TANK (ASS'Y)			1 ^S	46	35L

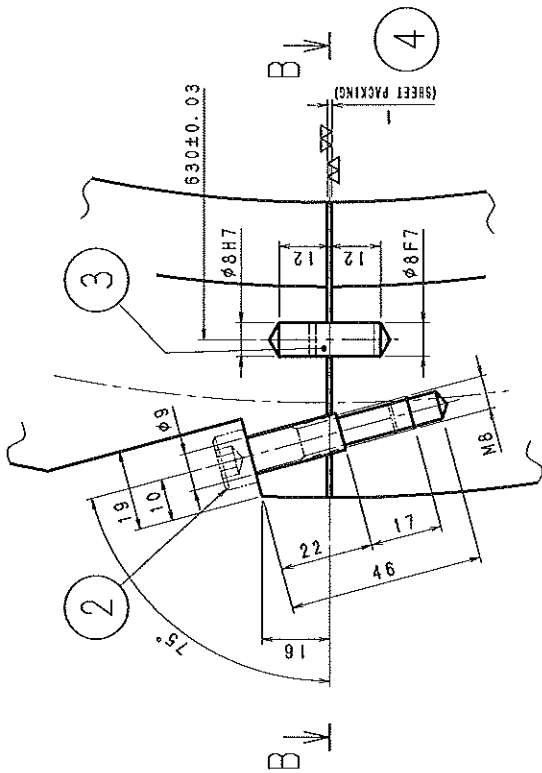
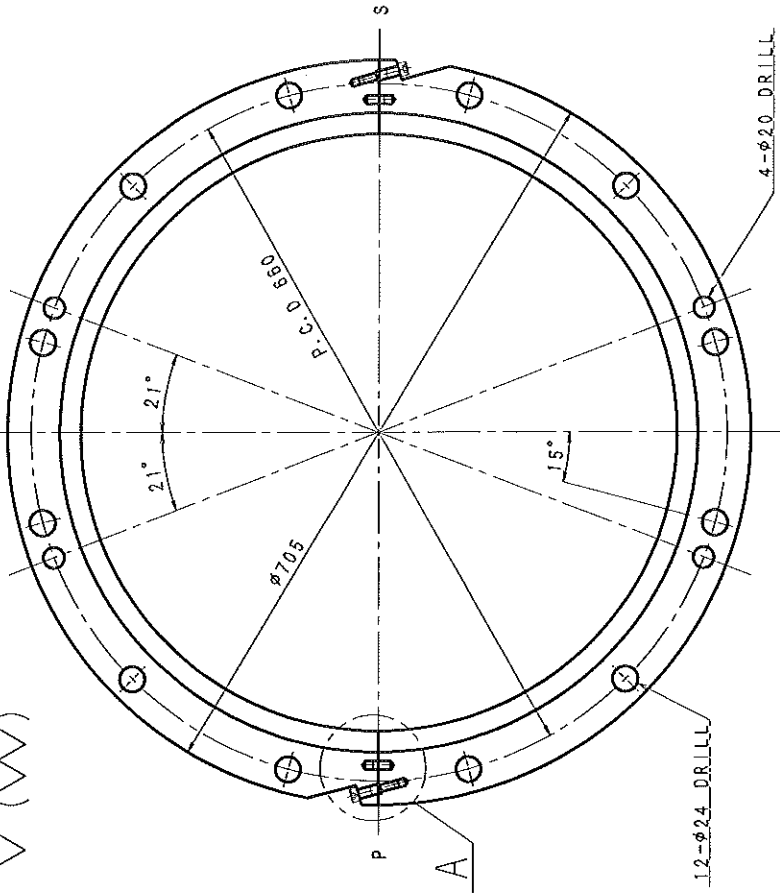
符号	部品名	材料	個数	予備	単重量	摘要
ITEM	NAME OF PART	MATERIAL	NO.	SPARE	WEIGHT	REMARKS
来歴 CAREER	注文主 MESSRS. SHANGHAI SHIPYARD CO., LTD.					
	名称 NAME	KEMEL-COMPACT SEAL				
		AFT SEAL TANK (35L)				
FD: AFT TK (STD-0)	DATE 2012.04.02	SCALE	WEIGHT 46Kg	APPROVED K. USUI	CHECKED S. MORIYOSHI	DRAWN M. OKAMOTO
	SERIAL NO.	X-39952/53/54/55/56 X-39957/58/59/60/61				
	S. NO.	S1183/4/5/6/7/8 S1189/90/1/2				
	DWG. NO.	C-0574-SB-0				

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KEMEL KEMEL COMPANY
a division of EAGLE INDUSTRY CO., LTD.

TOP

① ▽ (▽▽)



DETAIL A

BOTTOM

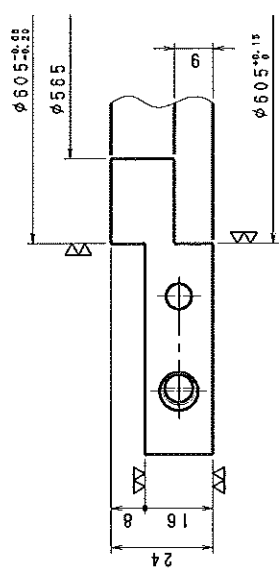
4	SHEET PACKING	ASBESTOS FREE	2	-	t1
3	KNOCK PIN	SUS304B	2	0.01	φ8X17
2	CYL. HEAD SCREW	SUS304B	2	0.02	M8X35X23S
1	DISTANCE RING	SS400P	1	17.3	

序号	部 品 名	材 料	数 量	子 组	单 位	重 量	备 注
ITEM	NAME OF PART	MATERIAL	QTY	GROUP	UNIT	WEIGHT	REMARKS

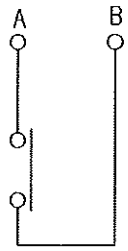
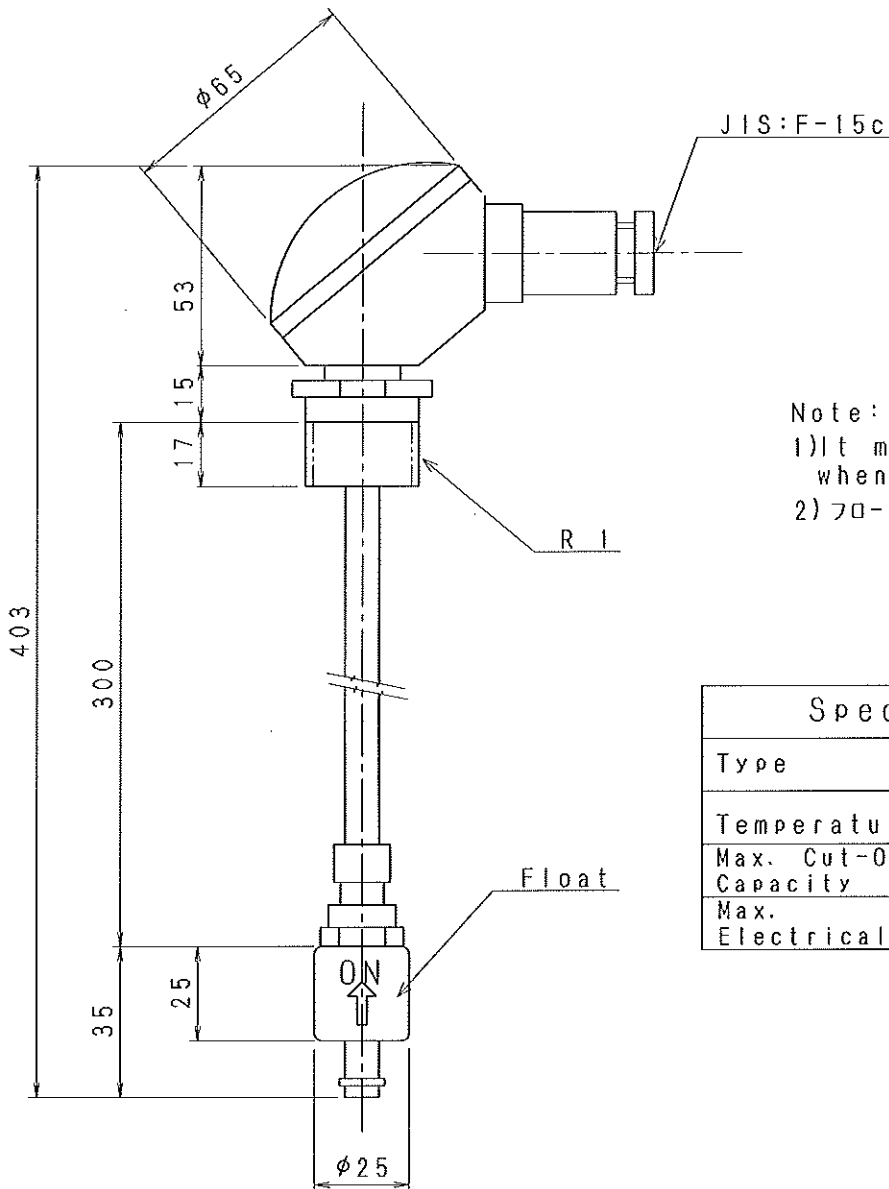
设计者 SHANGHAI SHIPYARD CO., LTD.
 名称 NAME
 DISTANCE RING (TYPE- 480)

审核者 KEMEL COMPANY
 日期 DATE 2012-04-02
 重量 WEIGHT 17.3kg
 图号 DRAWING NO. X-38852/53/54/55/56
 图名 NAME S1183/4/5/6/7/8
 比例 SCALE 1:1
 图号 NO. S1183/90/1/2

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SECTION B-B



INTERNAL CIRCUIT

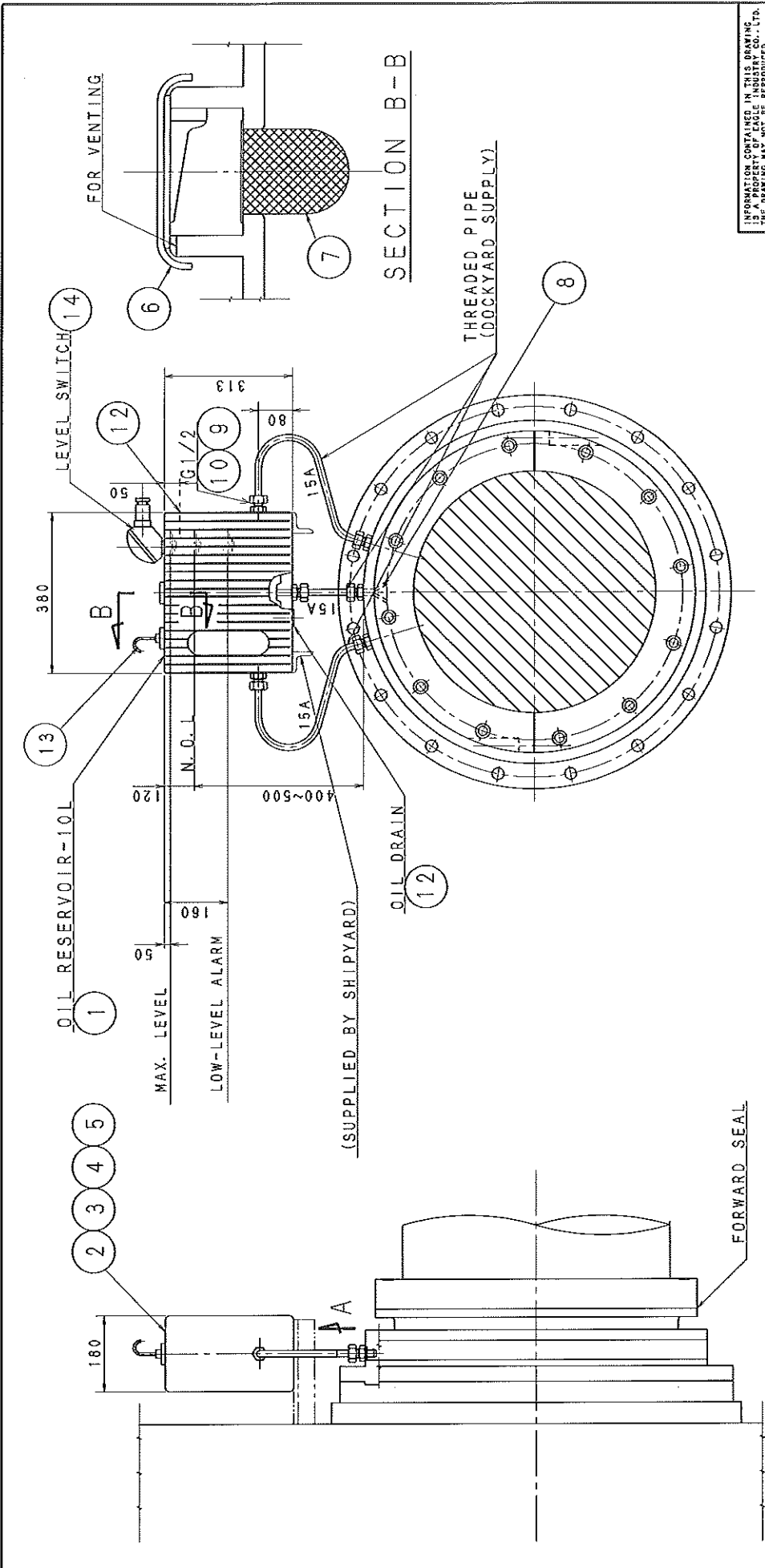
Note:

- 1) It makes contact when the float comes up.
- 2) フロートの"CLOSE"を上向きにセットすること。

Specification	
Type	OLV-2B-2
Temperature	-20° - 90° C
Max. Cut-Off Capacity	AC250V, 0.6A
Max. Electrical	DC300V, 0.5A

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1	OIL LEVEL SWITCH (FLOAT TYPE)		1				
符号 ITEM	部 品 名 NAME OF PART	材 料 MATERIAL	個 数 NO REQ'D	予 備 SPARE	単 重 量 WEIGHT Kg	摘 要 REMARKS	
来歴 CAREER	注文主 MESSRS SHANGHAI SHIPYARD CO., LTD.						
	名称 NAME for AFT SEAL TANK <u>LOW-OIL LEVEL SWITCH</u>						
DR. DATE	DR. SCALE	DR. WEIGHT	DR. APPROVED	DR. CHECKED			
2012. 04. 02	-		K. USUI	S. MORIYOSHI	M. OKAMOTO		
KEMEL		KEMEL COMPANY			SERIAL NO. X-39952/53/54/55/56 X-39957/58/59/60/61		
a division of EAGLE INDUSTRY CO., LTD.					S. NO. S1183/4/5/6/7/8 S1189/90/1/2		
					DR. (2012) DRG. NO. C-0320A-L-0		



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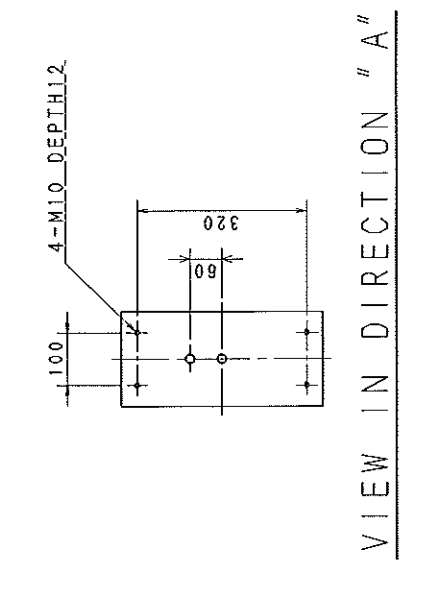
ITEM	ITEM NO.	NAME OF PART	MATERIAL	UNIT	QUANTITY	REMARKS
14	LEVEL SWITCH					
13	OIL LEVEL GAUGE					
12	PLUG	SS400				
10	PACKING	C1100				
9	BITE TYPE TUBE FITTING	S15C				
8	CIRCULATOR	VITON				
7	FILTER	BSW				
6	COVER	SS400				
5	PACKING	NON-ASBESTOS				
4	SPRING WASHER	SWRH72B				
3	HEXAGON HEAD SCREW	SS400				

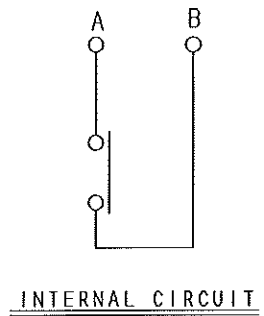
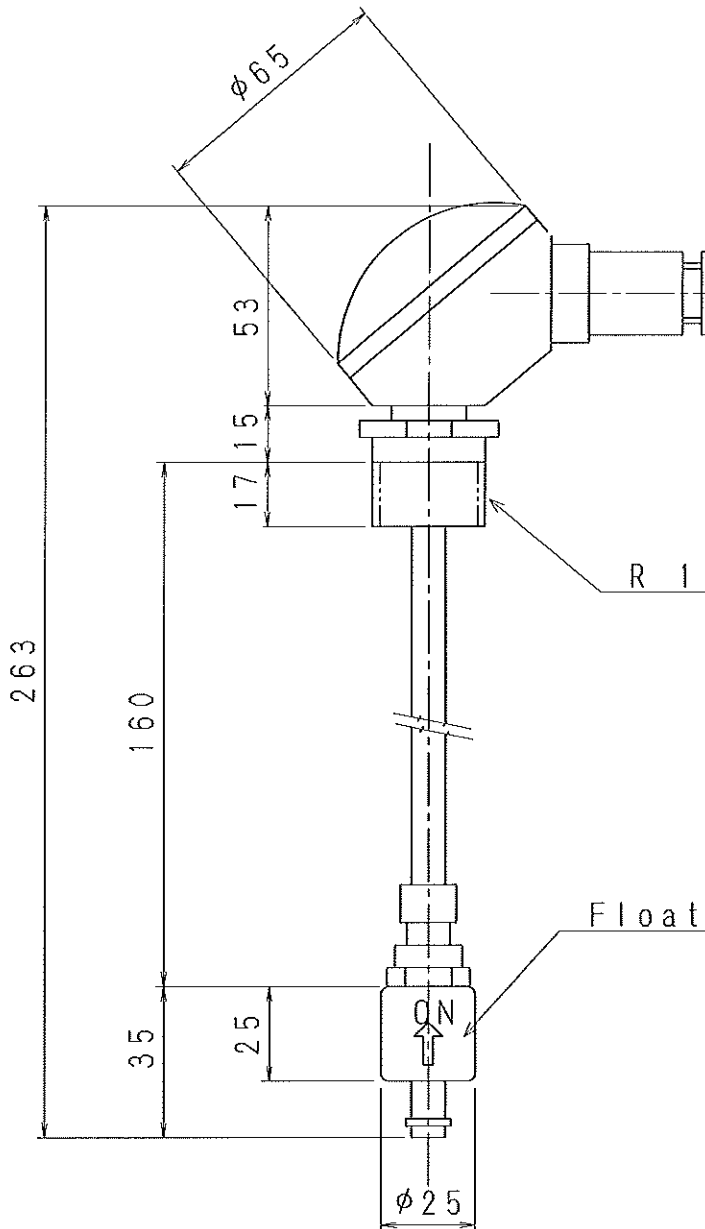
2	COVER	AC4C-F	1			
1	OIL RESERVOIR	AC4C-F	1	13.1	10L	

株式会社 MESSRS SHANGHAI SHIPYARD CO., LTD. 名称 KEMEL - COMPACT Seal OIL CIRCULATOR UNIT (10L)	图号 X-30952/53/54/55/56 X-30957/58/59/60/61 S1183/4/5/6/7/8 S1189/90/1/2
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图号 X-30952/53/54/55/56 X-30957/58/59/60/61 S1183/4/5/6/7/8 S1189/90/1/2	图名 KEMEL COMPANY (Division of ENGE INDUSTRY Co., Ltd.)
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图号 X-30952/53/54/55/56 X-30957/58/59/60/61 S1183/4/5/6/7/8 S1189/90/1/2	图名 KEMEL COMPANY (Division of ENGE INDUSTRY Co., Ltd.)
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Note:
 1) It makes contact when the float comes up.
 2) フロートの"CLOSE"を上向きにセットすること。

Specification	
Type	OLV-2B-2
Temperature	-20 - 90 °C
Max. Cut-Off Capacity	AC250V, 0.6A
Max. Electrical	DC300V, 0.5A

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1	OIL LEVEL SWITCH (FLOAT TYPE)	1				
符号 ITEM	部 品 名 NAME OF PART	材 料 MATERIAL	個 数 NO REQ'D	予 備 SPARE	単 重 量 WEIGHT Kg	摘 要 REMARKS

来歴 CAREER

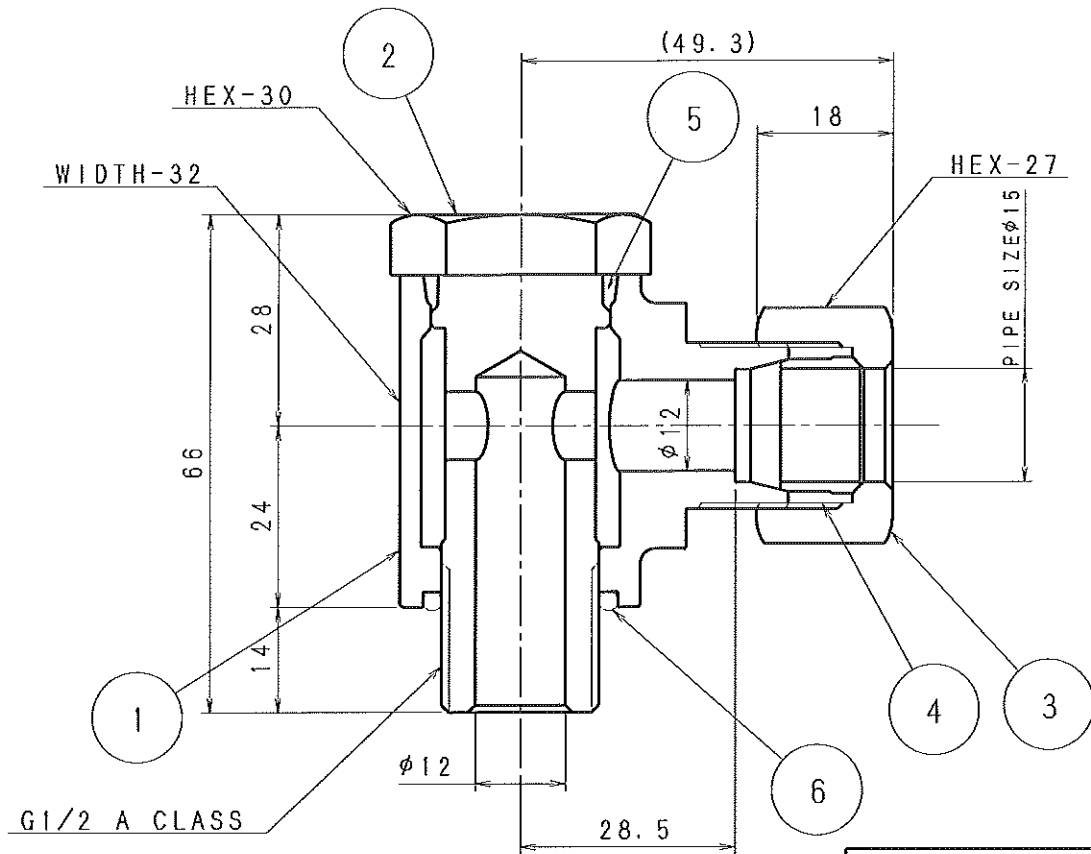
注文主 MESSRS SHANGHAI SHIPYARD CO., LTD.

名称 NAME for FWD SEAL TANK
LOW-OIL LEVEL SWITCH

DATE DR. DATE 2012. 04. 02	SCALE -	WEIGHT	APPROVED K. USUI	CHECKED S. MORIYOSHI	M. OKAMOTO
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KEMEL KEMEL COMPANY
 a division of EAGLE INDUSTRY CO., LTD.

SERIAL NO.	X-39952/53/54/55/56 X-39957/58/59/60/61
S. NO.	S1183/4/5/6/7/8 S1189/90/1/2
(REV) Dwg. NO.	C-0320F-L-0



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6	O-RING	NBR	1			JIS B2401 1B P-22
5	O-RING	NBR	1			JIS B2401 1B P-22
4	SLEEVE	STKM13C	1			LLA R-15
3	NUT	S45C	1			LLA N-15
2	BOLT	S45C	1			LLA EUEG-G1/2 P
1	BODY	S45C	1			GP-900341 B
SWIVEL JOINT			8			
符号 ITEM	部 品 名 NAME OF PART	材 料 MATERIAL	個数 NO REQ'D	予備 SPARE	單 重 量 WEIGHT Kg	摘 要 REMARKS

来歴 CAREER

注文主 MESSRS

SHANGHAI SHIPYARD CO., LTD.

名称 NAME

SWIVEL JOINT (φ15用)

DRW DR. DATE

2012. 04. 02

DR SCALE

-

DR WEIGHT

DR APPROVED

K. USUI

DR CHECKED

S. MORIYOSHI

M. OKAMOTO

DR SERIAL NO.

X-39952/53/54/55/56
X-39957/58/59/60/61

DR S. NO.

S1183/4/5/6/7/8
S1189/90/1/2

DR (DRW) DWG. NO.

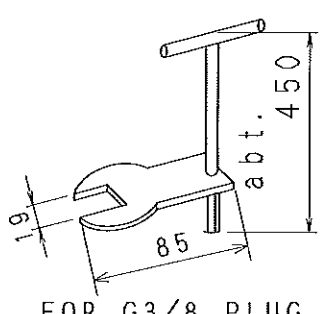
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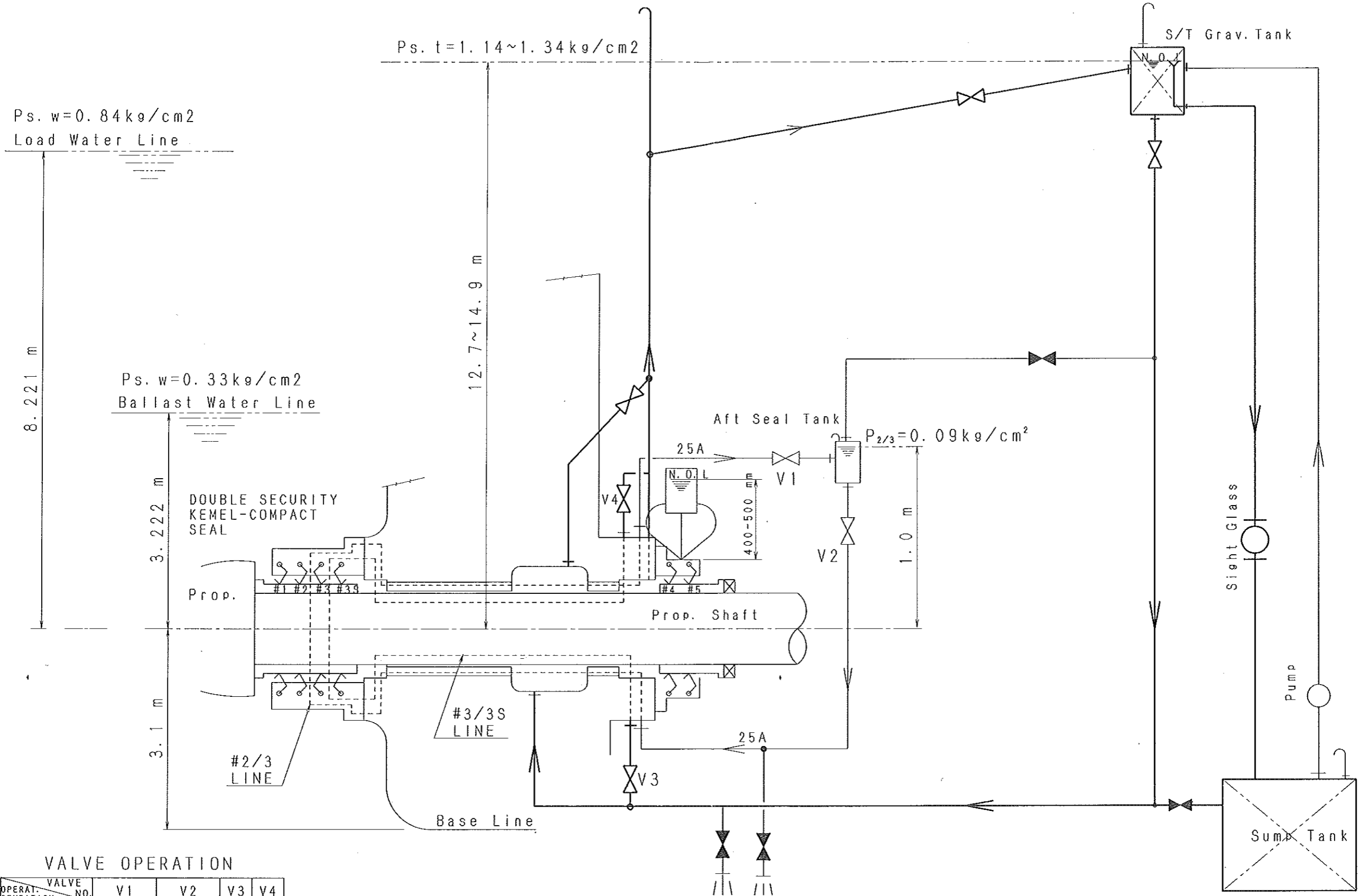
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TOOLS				PAGE	1			
KEMEL COMPACT SEAL (1 SET) TYPE 480				SHIP NO.	S1183/4/5/6/7/8 S1189/90/1/2			
				BOX NO.				
NO.	NAME	SKETCH	MATERIAL	SUPPLY PER SHIP		DRAWING		REMARKS
				WOR-KING	SPA-KINGRE	NO.	PART NO.	
1	WEAR DOWN GAUGE & CASE (AFT COMPACT SEAL)		STAINLESS STEEL WOODEN	1 SET		DX-480001-0	15	G3/8 INCL. MEASURING AL-PLATE
2	MOUNTING STRAP (AFT COMPACT SEAL)		MILD STEEL	6		DX-480001-0	16	
3	TRANSPORT TOOL (AFT & FORE COMPACT SEAL)		STEEL	1 1		DX-480001-0 CX-480004-0	20 20	
4	HEXAGON HEAD SCREW (AFT & FORE COMPACT SEAL)		STEEL	2 2		DX-480001-0 CX-480004-0	21 21	
5	HEXAGON HEAD SCREW (FORE COMPACT SEAL)		STEEL	4		CX-480004-0	14	
MFR'S NAME & ADDRESS		KEMEL COMPANY a division of EAGLE INDUSTRY CO., LTD.						
		3-1, ARAICHO-SHINHAMA, 2-CHOME, TAKASAGO, HYOGO, JAPAN						

TOOLS					PAGE		2	
KEMEL COMPACT SEAL (1 SET) TYPE 500					SHIP NO.		S1183/4/5/6/7/8 S1189/90/1/2	
					BOX NO.			
NO.	NAME	SKETCH	MATERIAL	SUPPLY PER SHIP		DRAWING		REMARKS
				WORKING	SPARE	NO.	PART NO.	
6	HEX. WRENCH & SPANNER WITH HANDLE FOR WEAR DOWN GAUGE (AFT COMPACT SEAL)	 <p>FOR G3/8 PLUG</p>	STEEL	1				FOR IN-WATER SURVEY
MFR'S NAME & ADDRESS			KEMEL COMPANY a division of EAGLE INDUSTRY CO., LTD.		3-1. ARAICHO-SHINHAMA, 2-CHOME, TAKASAGO, HYOGO, JAPAN			

FOR REFERENCE



VALVE OPERATION

OPERAT. CONDITION \ VALVE NO.	V1	V2	V3	V4
D ≥ 3.80m	○	○	○	○
D < 3.80m	X	X	○	○
No. 3S SEAL USE	VALVE OPERATION TO BE REFERED ABOVE DRAFT CONDITION		X	X

D: DRAFT FROM SHAFT CENTER LINE
 ○: OPEN
 X: CLOSE

SCHEMATIC DIAGRAM OF STERN TUBE L. O. SYSTEM
 NATURAL CIRCULATION
 1-GRAVITY TANK, 1-AFT SEAL TANK